KARNATAKA TEST HOUSE PVT. LTD.

MATERIAL TESTING LABORATORY

778/44, Gokul 1st Stage, 2nd Phase, 8th Cross, Triveni Road,
Yeshwanthpur, Bangalore - 560 054. Tel.: 23378383, 23375326,
E-mail : kthblr@gmail.com Website : www.karnatakatesthouse.com

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Report No. : KTH/C.AGG/0696-1104f/2014-2015 **Date: 07.07.2014**

TEST REPORT ON AGGREGATE
(Coarse Aggregate)

Name of the Customer* : **The Assistant Executive Engineer,**
Shettyhalli Sub Division,
BBMP, Bangalore.

Name of the Project* : Improvements to Footpath and drains in 16th and 19th cross road and other roads, in ward No.13 in Shettyhalli sub division.

Name of Contractor* : Mr. B.T Ravikumar, Bangalore.

Source of Sample : Supplied by the Contractor.

Sample Received on : 03.07.2014.

Technical Reference : IS : 2386 Part I to VIII– 1963 (Reaffirmed-2002), IS : 383 – 1970.

Sieve Analysis of Coarse Aggregate - 40mm & down size

Sl. No.	Sieve size mm	% Passing	IS : 383-1970 Stipulations		Remarks
			Single Size	Graded Size	
1	63	100	100	100	Sample confirms to single size of IS: Stipulation of 40mm size Aggregate.
2	40	92.12	85 to 100	95 to 100	
3	20	0.82	0 to 20	30 to 70	
4	12.5	-	0 to 20	-	
5	10	-	0 to 5	10 to 35	
6	4.75	-	-	0 to 5	

Sl. No.	Test Conducted	Identification mm	Results	IS : 383 – 1970 Stipulations
1	Flakiness Index (%)	40	12.35	Not specified
2	Elongation Index (%)	40	16.81	Not specified
3	Impact Value (%)	40	23.15	Shall not be more than 45% for Concrete and 30% for Wearing surfaces, such as runways, roads and pavements.

* As furnished by the Customer

For **KARNATAKA TEST HOUSE PVT. LTD.**

(SREENIVASA.C)
TECHNICAL MANAGER

AE13

[redacted]

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Report No. : KTH/C.AGG/0696-1104f/2014-2015 **Date: 07.07.2014**

TEST REPORT ON AGGREGATE
(Coarse Aggregate)

Name of the Customer* : **The Assistant Executive Engineer,**
Shettyhalli Sub Division,
BBMP, Bangalore.

Name of the Project* : Improvements to Footpath and drains in 16th and 19th cross road and other roads, in ward No.13 in Shettyhalli sub division.

Name of Contractor* : Mr. B.T Ravikumar, Bangalore.

Source of Sample : Supplied by the Customer.

Sample Received on : 03.07.2014.

Technical Reference : IS: 2386 Part I to VIII– 1963 (Reaffirmed-2002), IS : 383 – 1970.

Sieve Analysis of Coarse Aggregate - 20mm

Sl. No.	Sieve size mm	% Passing	IS : 383-1970 Stipulations		Remarks
			Single Size	Graded Size	
1	40	100	100	100	Sample confirms to single size of IS: Stipulation of 20mm size Aggregate
2	20	85.5	85 to 100	95 to 100	
3	16	32.80	-	-	
4	10	18.40	0 to 20	25 to 55	
5	4.75	4.12	0 to 5	0 to 10	

Sl. No.	Test Conducted	Identification mm	Results %	IS : 383 – 1970 Stipulations
1	Flakiness Index (%)	20	11.7	Not specified
2	Elongation Index (%)	20	14.5	Not specified
3	Crushing Value (%)	20	21.2	Shall not be more than 45% for Concrete and 30% for Wearing surfaces, such as runways, roads and pavements.

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For **KARNATAKA TEST HOUSE PVT. LTD.**

(SREENIVASA.C)
TECHNICAL MANAGER

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Report No. : KTH/C.AGG/0696-1105f/2014-2015 **Date: 07.07.2014**

TEST REPORT ON AGGREGATE
(Fine Aggregate)

Name of the Customer* : **The Assistant Executive Engineer,**
Shettyhalli Sub Division,
BBMP, Bangalore.

Name of the Project* : Improvements to Footpath and drains in 16th and 19th cross road and other roads, in ward No.13 in Shettyhalli sub division.

Name of Contractor* : Mr. B.T Ravikumar, Bangalore.

Source of Sample : Supplied by the Customer.

Sample Received on : 03.07.2014.

Technical Reference : IS : 2386 Part I to VIII– 1963 (Reaffirmed-2002), IS : 383 – 1970.

Sieve Analysis of Fine Aggregate

Sl. No.	Sieve size mm	% Passing	IS : 383 – 1970 Specification				Remarks
			% passing for Zone I	% passing for Zone II	% passing for Zone III	% Passing for Zone IV	
1	10	100.0	100	100	100	100	Falls in Zone –II as per table 4 of IS-383 – 1970.
2	4.75	98.9	90 – 100	90 – 100	90 – 100	95 - 100	
3	2.36	95.4	60 – 95	75 – 100	85 – 100	95 - 100	
4	1.18	75.2	30 – 70	55 – 90	75 – 100	90 - 100	
5	0.600	45.6	15 – 34	35 – 59	60 – 79	80 - 100	
6	0.300	8.5	5 – 20	8 – 30	12 – 40	15 to 50	
7	0.150	0.5	0 – 10	0 – 10	0 – 10	0 to 15	

Sl. No.	Test Conducted	Results	IS : 383 – 1970 Stipulations
1.	Materials finer than 75 microns (%) (Deleterious Material)	1.8	Shall not be more than 3.0 %.
2.	Fineness Modulus	2.61	Min - 2.0 Max – 3.5

* As furnished by the Customer

For **KARNATAKA TEST HOUSE PVT. LTD.**

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TECHNICAL MANAGER

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Report No. : KTH/CEMENT/0696-1106f/2014-2015 **Date: 11.07.2014**

PHYSICAL TEST REPORT ON CEMENT

Interim 3 & 7 days

Name of the Customer* : **The Assistant Executive Engineer,**
Shettyhalli Sub Division,
BBMP, Bangalore.

Name of the Project* : Improvements to Footpath and drains in 16th and 19th cross road and other roads, in ward No.13 in Shettyhalli sub division.

Name of Contractor* : Mr. B.T Ravikumar, Bangalore.

Source of Sample : Supplied by the Customer.

Type of Cement* : Ordinary Portland cement (OPC)

Brand of Cement* : Birla Super 53 Grade.

Sample Received on : 03.07.2014.

Period of Test : 03.07.2014 to 10.07.2014.

Technical Reference : IS: 4031(Part I–VI) 1988 (Reaffirmed–2000) & IS: 12269-1987.

Sl. No.	Test Conducted	Results	IS : 12269-1987 Stipulation	Remarks
1	Normal consistency	27.5 %	Not specified	-
2	Initial setting time	183 minutes	Shall not be less than 30 minutes	P
3	Final setting time	267 minutes	Shall not be more than 600 minutes	P
4	Compressive strength (Average of three results) a. 72 ± 1h (3 days) b.168 ± 2h (7 days) c. 672 ± 4h (28 days)	 28.30 MPa 38.18 MPa T.T.C	 Shall not be less than 27.0 MPa Shall not be less than 37.0 MPa Shall not be less than 53.0 MPa	 P P -
5	Fineness (By Blaine's air permeability method)	291.2 m^2/kg	Shall not be less than 225 m^2/kg	P
6	Soundness (Le-chatlier's method)	1.01 mm	Shall not be more than 10 mm	P

P: Passes IS requirement F: Fails IS requirement T.T.C: Test To be Conducted.

*As furnished by the Customer

For **KARNATAKA TEST HOUSE PVT. LTD.**

AE 13

(SREENIVASA.C.)
TECHNICAL MANAGER

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Report No. : KTH/CORE/0696-1108a/2014-2015 **Date: 07.07.2014**

TEST REPORT ON PRECAST CONCRETE SLAB

To,

The Assistant Executive Engineer,
Shettyhalli Sub Division,
BBMP, Bangalore.

Source of Sample : Supplied by the Customer.
Name of Project* : Improvements to Footpath and drains in 16th and 19th cross road and other roads, in ward No.13 in Shettyhalli sub division.
Name of Contractor* : Mr. B.T Ravikumar, Bangalore.
Sample Identification*: Slab Size – (775x620x98) mm
Sample Received on : 03.07.2014.
Technical Reference : IS : 456 – 2000, IS: 516 – 1959 (Reaffirmed in 1999) and SP 24-1983

Sl. No.	Core length ** (l) (mm)	Core Dia (d) (mm)	Core Wt.** (Kg.)	Failure Load (KN)	Core Comp. Strength (N/mm^2)	Corrected Cube Comp. Strength (N/mm^2) • (Dia <100mm	l/d Ratio	Correction factor for (l/d) Ratio◆	Corrected Cyl. Comp. Strength (N/mm^2)	Equivalent Cube Comp. Strength◆◆ (N/mm^2)
1.	82	66	610	**21.1**	**6.17**	6.66	1.242	0.917	6.11	7.64

** Core length / Weight after trimming.
*As furnished by the Customer.
◆ For l/d ratio, correction factors are as per IS: 516 – 1959 (Reaffirmed in 1999)
◆◆ Equivalent cube compressive strength = 1.25 x corrected cylindrical compressive strength as per IS: 516 – 1959 Clause 5.6.1 (Reaffirmed in 1999).
•After applying correction factor for diameter of core which is less than 100mm (i.e. strength of core x 1.08) as per SP 24-1983, Clause 16.3.2.

Note : As per IS 456-2000, clause 17.4.3, Concrete in the member represented by a core test shall be considered acceptable if the average equivalent cube strength of the cores is equal to at least 85 percent of the cube strength of the grade of concrete specified for the corresponding age and no individual core has a strength less than 75 percent.

For **KARNATAKA TEST HOUSE PVT. LTD.**

(SREENIVASA.C.)
TECHNICAL MANAGER.

KARNATAKA TEST HOUSE PVT. LTD. BANGALORE-54

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